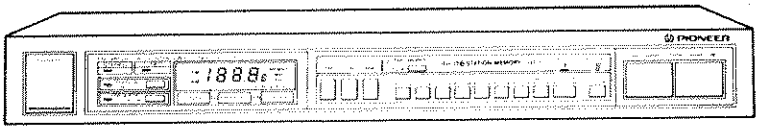
MASTER

FM/AM DIGITAL SYNTHESIZER TUNER

Operating Instructions

TX-1070L
TX-1070

- *These operating instructions are applicable to TX-1070L and TX-1070.*
- *The illustration is for the TX-1070L. However, the description also applies to the TX-1070.*



Thank you for buying this Pioneer product.
Please read through these operating instructions so you will know how to operate your model properly. After you have finished reading the instructions, put them away in a safe place for future reference.
In some countries or regions, the shape of the power plug and power outlet may sometimes differ from that shown in the explanatory drawings. However, the method of connecting and operating the unit is the same.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

IMPORTANT NOTICE
[For U.S. and Canadian models]

The serial number for this equipment is located on the rear panel. Please write this serial number on your enclosed warranty card and keep in a secure area. This is for your security.

[For Canadian model]

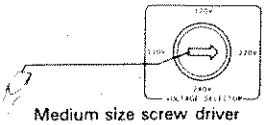
CAUTION: TO PREVENT ELECTRIC SHOCK DO NOT USE THIS (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

ATTENTION: POUR PREVENIR LES CHOCS ELECTRIQUES NE PAS UTILISER CETTE FICHE POLARISEE AVEC UN PROLONGATEUR UNE PRISE DE COURANT OU UNE AUTRE SORTIE DE COURANT, SAUF SI LES LAMES PEUVENT ETRE INSEREES A FOND SANS EN LAISSER AUCUNE PARTIE A DECOUVERT.

LINE VOLTAGE SELECTOR SWITCH

Only multi-voltage models are provided with this switch. U.S., Canadian, European, U.K., and Australian models are not provided with this switch.
You will find the line voltage selector switch on the rear panel. Before your model is shipped from the factroy, the switch is set to the power requirements of the destination; nevertheless, you should check that it is set properly before plugging the power cord into the AC outlet. If the voltage is not properly set, or if you move to an area where the voltage requirements differ, adjust the selector switch as follows. Before adjusting, disconnect the power cord.

1. Use a medium-size screwdriver.
2. Insert the screwdriver into the arrow and turn until it points to the voltage value of your area.



Medium size screw driver

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PIONEER

SAFETY INSTRUCTIONS

READ INSTRUCTIONS – All the safety and operating instructions should be read before the appliance is operated.

RETAIN INSTRUCTIONS – The operating instructions should be retained for future reference.

HEED WARNING – All warnings on the appliance and in the operating instructions should be adhered to.

FOLLOW INSTRUCTIONS – All operating and use instructions should be followed.

WATER AND MOISTURE – The appliance should not be used near water – for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.

LOCATION – The appliance should be installed in a stable location.

WALL OR CEILING MOUNTING – The appliance should not be mounted to a wall or ceiling.

VENTILATION – The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.

HEAT – The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.

POWER SOURCES – The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.

POWER-CORD PROTECTION – Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.

POLARIZATION – If your purchased product is provided with a polarized power plug, please read the following instructions. This product is equipped with a polarized alternating current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.

CLEANING – The appliance should be cleaned only with a polishing cloth or a soft dry cloth. Never clean with furniture wax, benzine, insecticides or other volatile liquids since they may corrode the cabinet.

POWER LINES – An outdoor antenna should be located away from power lines.

NONUSE PERIODS – The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.

OBJECT AND LIQUID ENTRY – Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.

DAMAGE REQUIRING SERVICE – The appliance should be serviced by Pioneer authorized service center or qualified service personnel when:

- The power-supply cord or the plug has been damaged; or
- Objects have fallen, or liquid has been spilled into the appliance; or
- The appliance has been exposed to rain; or
- The appliance does not appear to operate normally or exhibits a marked change in performance; or
- The appliance has been dropped; or the enclosure damaged.

SERVICING – The user should not attempt to service the appliance beyond that described in the operating instructions. For all other servicing, contact the nearest Pioneer authorized service center.

OUTDOOR ANTENNA GROUNDING – If an outside antenna is connected to the antenna terminal, be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges.
In the U.S.A. section 810 of the National Electrical Code, ANSI/NFPA No. 70-1984, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Fig. A.

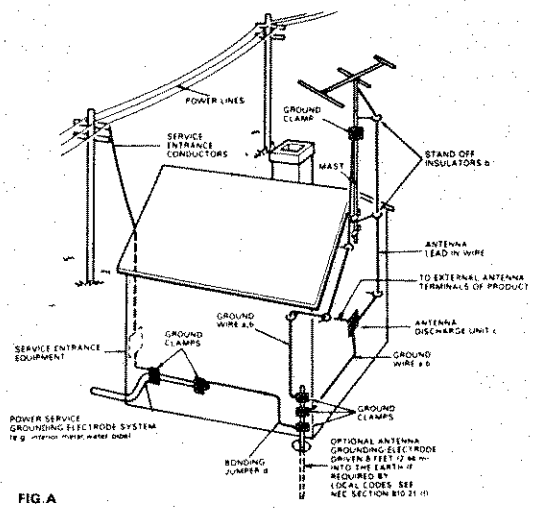


FIG.A

a) Use No. 10 AWG (5.3 mm²) copper, No. 8 AWG (8.4 mm²) aluminum, No. 17 AWG (1.0 mm²) copper-clad steel, bronze wire, or larger as ground wire.
b) Secure antenna lead-in and ground wires to house with stand-off insulators spaced from 4 feet (1.22 meters) to 6 feet (1.83 meters) apart.
c) Mount antenna discharge unit as closely as possible to where lead-in enters house.
d) Use jumper wire not smaller than No.6 AWG (13.3 mm²) copper or equivalent when separate antenna-grounding electrode is used.

IMPORTANT 1

The lightning flash with arrowhead, within an equilateral triangle, is intended to alert the user of the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

CAUTION
RISK OF ELECTRIC SHOCK DO NOT OPEN

CAUTION:
TO PREVENT THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

IMPORTANT 2

If the apparatus is fitted with AC mains power outlet(s), see REAR PANEL FACILITIES for convenient connection of additional Hi-Fi component(s). Make all connections to the AC outlet(s) and the signal terminals first. Connect the plug to the wall socket last, make sure that the power switch is off. Disconnect the wall plug when the equipment is not in (regular) use, e.g. when on vacation.

FOR USE IN THE UNITED KINGDOM

WARNING: This plug must only be connected to electronic apparatus equipped with suitable sockets.
If not, cut off the plug and fit an appropriate type in accordance with the instructions below.
The cut-off plug must be disposed of as an electrical shock hazard could exist if connected to a socket outlet.

The wires in this mains lead are coloured in accordance with the following code:

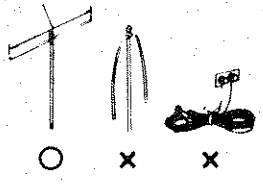
Blue: Neutral
Brown: Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured marking identifying the terminals in your plug proceed as follows:
The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

CONNECTIONS

- Use for FM reception until a special-purpose FM antenna is installed.
- Stretch both ends taut and affix to a wall, etc.

Stretch taut and affix.



○ × ×

Only TX-1070L is equipped with PAL socket. Refer to "HINTS FOR BETTER RECEPTION" in the page 9.

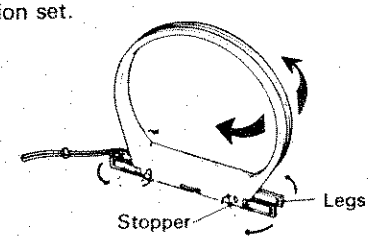
Accessory FM T-type antenna

Outdoor FM antenna

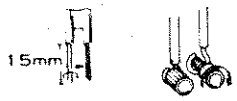
Accessory AM Loop Antenna

AM LOOP ANTENNA

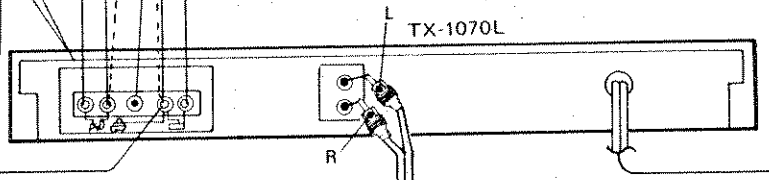
- Unfold all four legs of the AM loop antenna toward the outside, and insert the stopper inside the legs into the hole in the AM loop antenna to fix it in position.
- Set the antenna on a level surface, and point in the direction that gives optimum reception.
- Do not install the antenna in locations where it touches the cover of the tuner or other metal objects, or near a CD player, personal computer, or television set.



CONNECTING THE FM T-TYPE ANTENNA and THE AM LOOP ANTENNA



Wrap the ends of the wire in a clockwise direction around the base of the terminals and tighten the terminals to secure it.

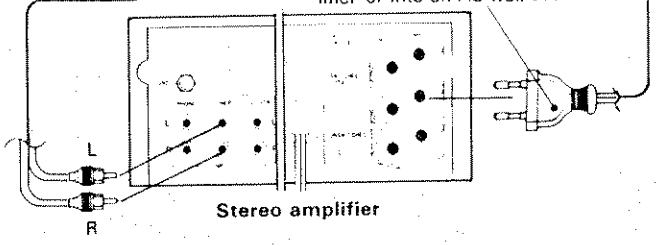


Antenna ground
Although grounding is not necessary for reception, it is recommended for protection against damage from lightning if an outdoor FM antenna is used. Grounding is recommended as well to help reduce noise and hum.

NOTE:
Never make the ground connection to a gas pipe as sparks could cause the gas to ignite.

Pin plug connecting cord
- Connect the white plug to the white terminal (L) and the red plug to the red terminal (R).
- Make sure that there is a proper connection.

Connecting the power cord
Plug the power cord into (SWITCHED) the auxiliary power outlet on the amplifier or into an AC wall socket.



Stereo amplifier

CHANNEL STEP/DE-EMPHASIS switch
(Applicable to multi-voltage models only)

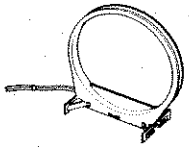
This switch has been set before shipping to the channel allocation and de-emphasis value for the area in which the unit is sold. If the switch is set incorrectly, the reception frequency display will not stop, and even if reception is possible, it may sound unnatural. In order to prevent such occurences, be sure to check that the switch is set properly before using the unit.

(100/10 kHz)/75 µs..... North America and Continental South America

(50/9 kHz)/50 µs ..... Other areas

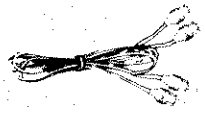
CHECKING OUT THE ACCESSORIES

AM loop antenna 1

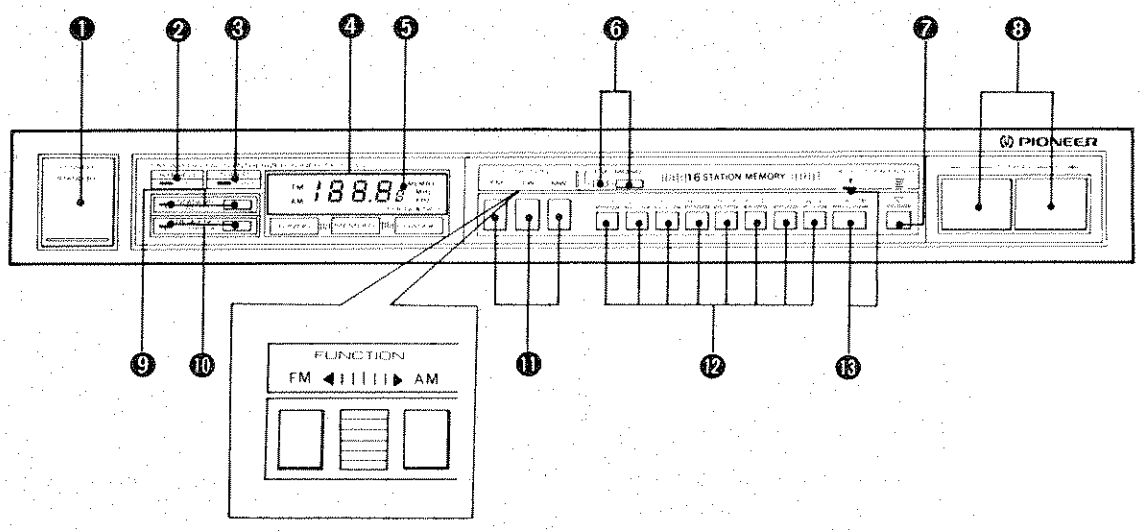


FM T-type antenna 1

Connection cord with pin plug...1



FRONT PANEL FACILITIES



❶ POWER switch

When this switch is set to the on position, power is supplied to the tuner's main circuits. The unit's POWER switch is geared to selecting the transformer's secondary and so even at the STAND-BY position, the unit's circuitry will work as long as the power cord is connected to a power outlet. Disconnect the power cord from the power outlet when you do not plan to use the unit for a long period of time.

❷ FM STEREO indicator

This lights when a stereo program has been picked up during an FM broadcast reception.

❸ TUNED indicator

This lights up to indicate when the finest tuning of a station has been achieved.

❹ FREQUENCY/CHANNEL display

This shows the frequency of the station currently being received in digital form. The FM band is indicated by MHz, and the AM (LW, MW) band by kHz.
The channel number of the STATION CALL switch is displayed also.

❺ MEMORY indicator

❻ FM MONO switch/indicator

Normally, when receiving an FM stereo broadcast, leave this switch OFF. If the broadcast station is distant, or if you are in a poor reception area, the input signals will be weak, and during stereo reception, noise will be prominent, making the broadcast difficult to hear. In such a case, press ON this switch. The broadcast will be reproduced in monaural, however noise will be reduced, enabling the broadcast to be heard more clearly.

NOTE:

- *This switch does not function when you are listening to an AM broadcast.*
- *The ON or OFF status of the FM MONO switch will be memorized when you preset a station in the STATION CALL switch. By using the RECEPTION USING PRESET CALL function, you can receive an FM broadcast at any time in the same mode.*

❼ MEMORY switch

This is used to memorize stations. When the switch is depressed, the MEMORY indicator will light. To memorize the frequency of any station, press the STATION CALL switch while the MEMORY indicator is lighting up.

❽ TUNING switches (−, +)

These are used to locate stations. Push the left half of this switch "−" to locate a station broadcasting on a lower frequency and the right half of this switch "+" to locate a station broadcasting on a higher frequency.

❾ MANUAL/AUTO selector/indicator

Use this switch in combination with the FREQUENCY/CHANNEL selector when changing the tuning methods:

- AUTO SEARCH TUNING, • MANUAL TUNING,
- AUTO INDEX CHANNEL SCAN, • MANUAL INDEX CHANNEL SCAN.

When this selector is pressed so that the AUTO indicator lights, the AUTO mode will be activated. For details, see pages 6,7 and 8.

❿ FREQUENCY/CHANNEL selector/indicator

Use this selector together with the MANUAL/AUTO selector of ❾ when changing the tuning method. When it is pressed so that the CHANNEL indicator lights, the CHANNEL mode will be activated. For details, see pages 6,7 and 8.

⓫ FUNCTION switches

These are used to select either the FM, MW or LW broadcasting bands.
FM: Push to receive FM band broadcasts.
MW: Push to receive MW band broadcasts.
LW: Push to receive LW band broadcasts.

Only AM/FM switching is availabe model for the TX-1070.

⓬ STATION CALL switches

These are used to preset and recall broadcasting stations.

⓭ Station mode SELECT switch/indicator

Use this switch to set the station call switches to either the No. 1 mode (1 — 8), or the No. 2 (9 — 16). When the switch is pressed so that the indicator lights, the No. 2 mode (9 — 16) has been selected.

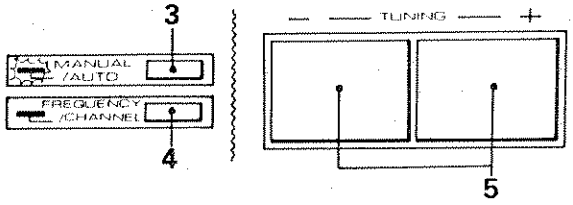
NOTE:
Merely setting this switch will cause no change in tuner operation.

AUTOMATIC AND MANUAL TUNING

- Check that all terminals are properly connected before switching on the unit.
- Before starting to use the unit, turn the FUNCTION switches on the stereo amplifier to TUNER.

AUTO SEARCH TUNING

The electronic tuning circuit inside the unit will search for your desired station automatically.



This tuning method is used in the following cases:

- When presetting each frequency corresponding to the desired station using the STATION CALL switch. (For details on the presetting, see page 6.)
- When tuning in to a station irrespective of the preset stations reception area, perform tuning manually using the following procedure.

1 Turn on the POWER of the unit and the stereo amplifier.

2 Select your desired broadcasting band using the FUNCTION switches.

3 Press the MANUAL/AUTO selector so that the AUTO indicator lights.

4 Press the FREQUENCY/CHANNEL selector so that the CHANNEL indicator goes out.

5 Press the "+" or "–" TUNING switch.

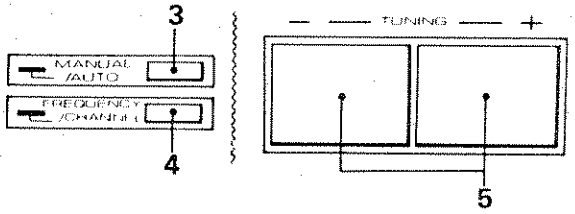
By simply pressing the tuning switch, the tuner will automatically search for a station and tune in to it. By pressing "+", the frequency will move upwards, and by pressing "–", the frequency will move downwards. Each time the switch is pressed, the next higher (or lower) frequency station will be tuned in.

NOTE:
When AUTO SEARCH is in use, reception may not be possible over long distances or when signals are weak. At these times manual tuning is recommended.

Caution with Auto-Search:

- Since this is a highly sensitive mechanism, the frequency Auto-Search operation may stop even with weak foreign broadcasts, particularly at night. Also frequency noise in large cities may cause the seach operation to stop.
- When using Auto-Search to preset AM stations, if the frequency search operation stops too frequently, changing the position of the AM loop antenna may be of help in reducing its sensitivity so that only powerful, nearby stations are received. After tuning in the station, be sure to reposition the antenna to its best position for reception.
- For very weak stations, use the manual tuning mode to preset stations.

MANUAL TUNING



1 Turn on the POWER of the unit and the stereo amplifier.

2 Select your desired broadcasting band using the FUNCTION switches.

3 Press the MANUAL/AUTO selector so that the AUTO indicator goes out.

4 Press the FREQUENCY/CHANNEL selector so that the CHANNEL indicator goes out.

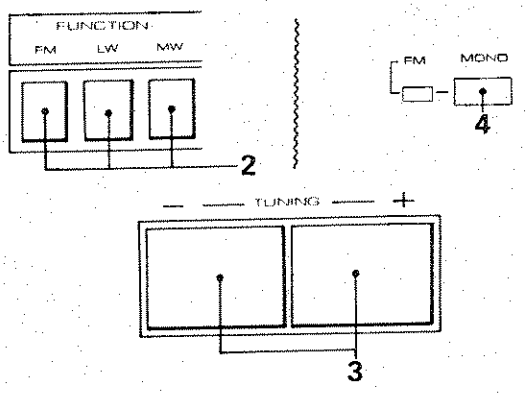
5 Use the TUNING switches "–" or "+" to locate the frequency of your desired station.

For step-by-step searching, press the TUNING switch once and release it immediately. For continuous rapid scanning keep the TUNING switch pressed. The TUNED indicator will light up when the desired station is tuned in best.

NOTE:
The TUNED indicator will not function for broadcasts received over long distances or when signals are weak.

PRESETTING STATIONS

PRESETTING



1 Turn on power to this unit and the stereo amplifier.

2 Select the broadcasting band to be memorized, using the FUNCTION switch.

3 Tune in the desired station.

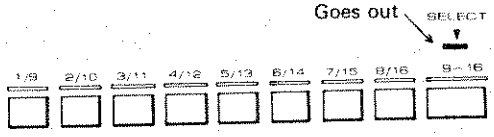
- See the AUTO SEARCH TUNING section for information on reception using auto-search tuning.
- See the MANUAL TUNING section for information on reception using manual tuning .

4 After tuning in to an FM broadcast, set the FM MONO switch to the position which provides best overall listening conditions.

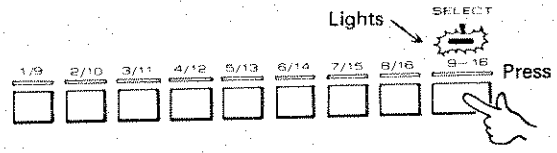
- You can also preset the ON or OFF status of the FM MONO switch in the STATION CALL switch. This enables you to receive the same broadcast at any time in the same mode.

5 Press the station mode SELECT switch to select Mode 1 or Mode 2.

When presetting using Mode 1 STATION CALL switches



When presetting using Mode 2 STATION CALL switches



6 Press the MEMORY switch.

- The memory indicator lights.

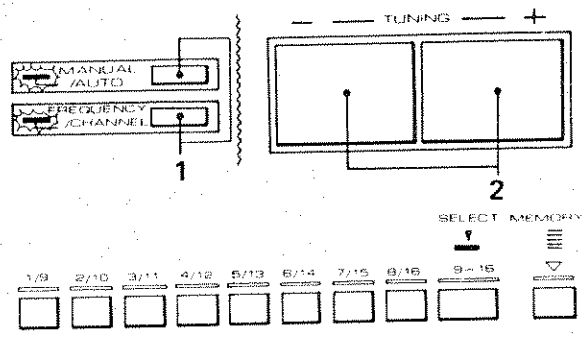
7 Press the STATION CALL switch into which you wish to preset the station.

- Perform presetting during the time that the MEMORY indicator lights.
- If the MEMORY indicator goes out, presetting is no longer possible. Press the MEMORY switch again to perform presetting.

8 Repeat steps 2 to 6 to preset stations into STATION CALL switches 1 through 16.

A total of up to 16 stations (including FM, LW and MW) can be preset. If a new station is memorized in a preset switch already containing a memorized station, the previously memorized station data will be erased, and the last-memorized station will be entered in the switch.

PRESET STATION VERIFICATION



1 Press the FREQUENCY/CHANNEL and MANUAL/AUTO selectors so that the both indicators light.

2 Press the "+" or "–" TUNING switch.

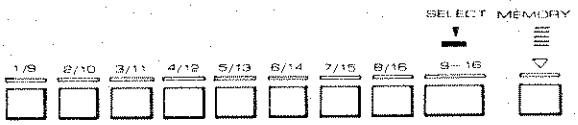
The receiver will search for the frequency of each station which was preset by the STATION CALL switch. Each station will be tuned in successively, and the channel number and frequency (MHz or kHz) will be displayed for about 5 seconds. Observe this display to check whether or not the desired preset station has been tuned in.

RECEPTION USING PRESET CALL

Press the STATION CALL switch corresponding to the previously preset station. (When necessary, do not neglect to perform SELECT selection as well.)

AUTO INDEX CHANNEL SCAN

You can find out which programs are being broadcast on each of the preset stations using the PRESET STATION VERIFICATION procedure described above. As each preset station is tuned in, press the STATION CALL switch to listen to the broadcast.

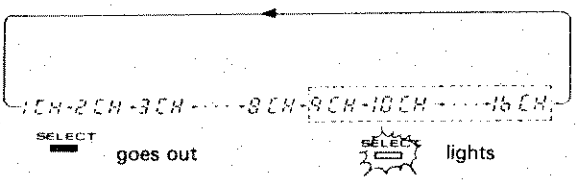


1 Turn on power to this unit and to the stereo amplifier.

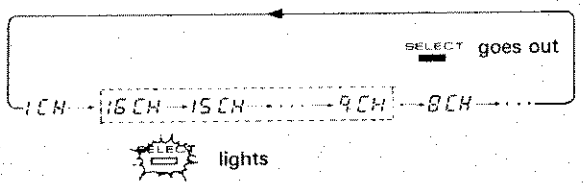
2 Press the FREQUENCY/CHANNEL and MANUAL/AUTO selectors so that the both indicators light.

3 Press the "+" or "−" TUNING switch.

When "+" is pressed, the stations will appear in the sequence:



When "−" is pressed, the stations will appear in the sequence:

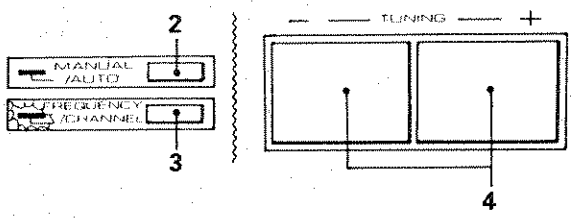


4. Press the STATION CALL switches corresponding to the previously preset station that you wish to hear.

By following these procedures, tuning may be effected simply and accurately.

MANUAL INDEX CHANNEL SCAN

Use the following procedure to manually tune in each preset station in sequence.



1 Turn POWER to this unit and to the stereo amplifier.

2 Press the MANUAL/AUTO selector so that the AUTO indicator goes out.

3 Press the FREQUENCY/CHANNEL selector so that the CHANNEL indicator lights.

4 Press the "+" or "−" TUNING switch.

Last station memory

- When the POWER switch is pressed to turn power on, the last station received before the power was previously turned off will be received again.
- When power is ON, if the FUNCTION switches are pressed, the last station received before the FUNCTION switches were previously pressed will be received again.

NOTE:

- *Preset stations will be retained in the memory when the POWER is switched to STAND-BY as long as the power cord is not disconnected.*
- *It is recommended that you disconnect the power cord when the unit is not being used for long periods of time. The electrical circuit controlling the MEMORY function is powered by a back-up condenser so that the unit will retain preset stations for a few weeks.*
- *If a preset station has been erased, reset it.*

HINTS FOR BETTER RECEPTION

INDOOR VS. OUTDOOR ANTENNAS

If FM reception is poor when using the accessory T-type antenna, it means that you are not living in a good reception area. In this case, setting up a good outdoor FM antenna will solve this problem.

NOTE:
Consult your dealer as to the selection and actual installation of the FM antenna.

FM ANTENNA CONNECTIONS

There are two ways of connecting the FM antenna to the antenna input terminals: with a 300-ohm twin-lead feeder or with a 75-ohm coaxial cable. If full justice is to be done to the tuner's performance, a 75-ohm coaxial cable is recommended since it is more immune than the twin-lead feeder to noise and interference from external sources. If an FM antenna has already been erected outdoors, connect it, referring to the figure.

GROUNDING

Grounding is recommended if reception of FM programs is impaired by noise. To ground, connect a thick polyvinyl insulated wire to the GND terminal and attach the other end to a metal water pipe or grounding bar or wind it around a copper plate and bury it.

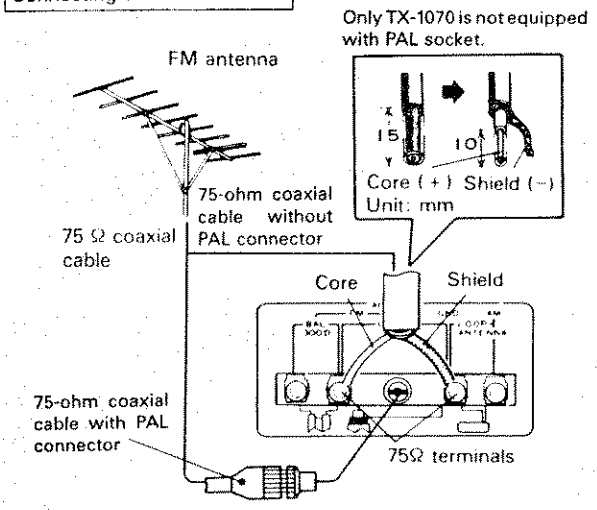
NOTE:
Never connect a wire to a gas pipe for grounding since sparks may ignite the gas.

OUTDOOR AM ANTENNAS

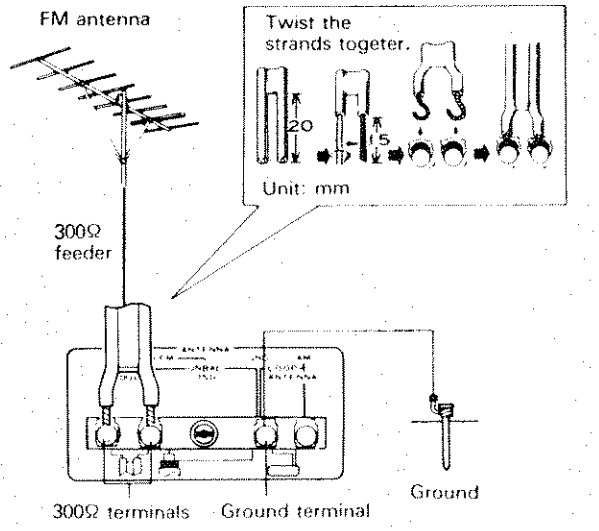
The accessory AM loop antenna is quite sufficient if you live in a strong-signal area. However, an outdoor AM antenna should be erected if surrounding objects are interfering with reception or if the stations are distant and their signals are weak.

NOTE:
Do not detach the AM loop antenna when using an outdoor AM antenna.

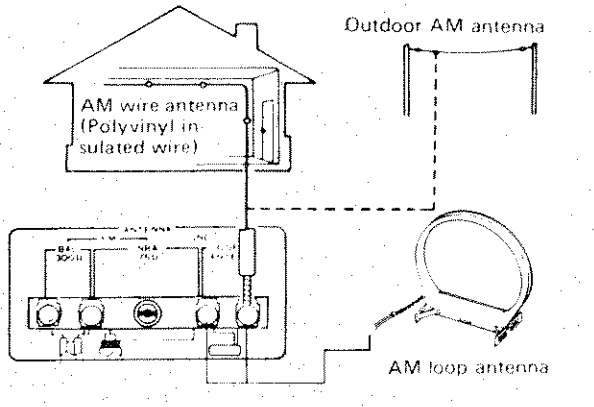
Connecting the coaxial cable



Connecting the 300Ω feeder



Connecting the Outdoor AM antenna



TROUBLESHOOTING

If you think your unit is malfunctioning, take the time to check out the points below. In many cases, carelessness or incorrect operation is to blame. Alternatively, the problem may lie outside the unit. Make a point of checking the other stereo components being used as well as any other electrical appliances. If the trouble is not remedied even after checking the points below, contact your nearest authorized Pioneer service station.

Symptom	Couse	Remedy
No power	• Has the power cord been disconnected?	• Reconnect the power cord.
No sound	• Have any of the output cords been disconnected or incorrectly connected?	• Connect them properly to the TUNER terminals on the amplifier.
	• Has the antenna been disconnected or is the connection loose?	• Connect the antenna properly.
	• Has the power switch been left off for several days? (Station memory has been lost.)	• Reprogram station memory.
Static	• Is the station properly tuned in to the correct frequency?	• Tune in the station correctly.
	• Has the antenna been disconnected or is the connection loose?	• Connect the antenna properly.
Sound distortion [On the FM band]	• Is the FM T-type antenna still folded up and not extended or is the antenna facing in the wrong direction?	• Extend the two ends of the antenna and/or change the direction of the antenna until best reception is obtained.
	• Are the signals weak and reception poor?	• Substitute an FM outdoor antenna for the FM T-type antenna
	• Static from other appliances (particularly automobiles) or multipath reflection (radio waves beamed off mountains and tall buildings and not received directly.)	• Try varying the height and direction of the antenna or use an FM outdoor antenna substituting a 75-ohm coaxial cable for the standard cable and fixing it as far away as possible from the street.
Sound distortion [On the AM band]	• Poor positioning of AM loop antenna?	• Change the direction of the antenna until best reception is obtained.
	• Is accessory AM loop antenna in contact with tuner?	• Separate the AM loop antenna as far as possible from tuner.
	• Are the signals weak and reception poor?	• Fix an AM outdoor antenna or ground the antenna.
	• Static from other electrical appliances (fluorescent lights /motors?)	• Switch off other appliances or keep as far away as possible from the tuner when in use.
Stereo broadcasts not received in stereo.	• Are the signals weak, with insufficient input?	• Change to an outdoor FM antenna
	• Is the frequency tuned in properly?	• Tune in station accurately.
	• Is the FM MONO switch ON?	• Press the FM MONO switch OFF.

SPECIFICATIONS (Model TX-1070L)

FM Tuner Section

Frequency range ..... 87.5 MHz to 108 MHz
Usable Sensitivity ..... 11.2 dBf, IHF (1.0 μV/75 Ω)
50 dB Quieting Sensitivity .....
Stereo; 36.2 dBf, IHF (17.8 μV/75 Ω)
Sensitivity (DIN) ..... Mono; 0.9 μV/75 Ω
Stereo; 30 μV/75 Ω
Signal-to-Noise Ratio ..... Mono; 78 dB (at 80 dBf)
Stereo; 76 dB (at 80 dBf)
Signal-to Noise Ratio (DIN) ..... Mono; 66 dB
Stereo; 60 dB
Distortion (at 80 dBf) ..... Stereo; 0.35% (1 kHz)
Alternate Channel Selectivity ..... 67 dB (400 kHz)
Stereo Separation ..... 40 dB (1 kHz)
Frequency Response ..... $^{+0.5}_{-1.5}$ dB (30 Hz to 15 kHz)
Image Response Ratio ..... 50 dB
IF Response Ratio ..... 110 dB
AM Suppression Ratio ..... 50 dB
Antenna Input ..... 300 Ω balanced
75 Ω unbalanced

MW Tuner Section

Frequency range ..... 531 kHz to 1,602 kHz
Sensitivity (IHF, Loop antenna) ..... 400 μV/m
Selectivity ..... 22 dB
Signal-to-Noise Ratio ..... 52 dB
Image Response Ratio ..... 40 dB
IF Response Ratio ..... 50 dB
Antenna ..... Loop Antenna

LW Tuner Section

Frequency range ..... 153 kHz to 281 kHz
Selectivity ..... 22 dB
Signal-to-Noise Ratio ..... 52 dB
Image Response Ratio ..... 40 dB
Antenna ..... Loop Antenna

Audio Section

Output (Level/Impedance)
FM (100% MOD) FIXED ..... 650 mV/3.6 kΩ
MW/LW (30% MOD) FIXED ..... 150 mV/3.6 kΩ

Miscellaneous

Power Requirements ..... a.c. 220 Volts~, 50/60 Hz
Power Consumption ..... 9.5 W
Dimensions ..... 420 (W) x 60 (H) x 219 (D) mm
Weight (without package) ..... 2.4 kg (5 lb 5 oz)

Furnished Parts

FM T-type Antenna 1
AM Loop Antenna 1
Connection Cord with Pin Plugs 1
Operating Instructions 1

NOTE:
Specifications and design subject to possible modification without notice due to improvements.

SPECIFICATIONS (Model TX-1070)

FM Tuner Section

Frequency range ..... 87.5 MHz to 108 MHz
Usable Sensitivity ..... 11.2 dBf, IHF (1.0 μV/75 Ω)
50 dB Quieting Sensitivity .....
Stereo; 36.2 dBf, IHF (17.8 μV/75 Ω)
Sensitivity (DIN) ..... Mono; 0.9 μV/75 Ω
Stereo; 30 μV/75 Ω
Signal-to-Noise Ratio ..... Mono; 78 dB (at 80 dBf)
Stereo; 76 dB (at 80 dBf)
Signal-to Noise Ratio (DIN) ..... Mono; 66 dB
Stereo; 60 dB
Distortion (at 80 dBf) ..... Stereo; 0.35% (1 kHz)
Alternate Channel Selectivity ..... 67 dB (400 kHz)
Stereo Separation ..... 40 dB (1 kHz)
Frequency Response ..... $^{+0}_{-5}$ dB (30 Hz to 15 kHz)
Image Response Ratio ..... 50 dB
IF Response Ratio ..... 110 dB
AM Suppression Ratio ..... 50 dB
Antenna Input ..... 300 Ω balanced
75 Ω unbalanced

AM Tuner Section

Frequency range ..... 531 kHz to 1,602 kHz
Sensitivity (IHF, Loop antenna) ..... 400 μV/m
Selectivity ..... 22 dB
Signal-to-Noise Ratio ..... 52 dB
Image Response Ratio ..... 40 dB
IF Response Ratio ..... 50 dB
Antenna ..... Loop Antenna

Audio Section

Output Level
FM (100% MOD) ..... 650 mV/3.6 kΩ
AM (30% MOD) ..... 150 mV/3.6 kΩ

Miscellaneous

Power Requirements ..... a.c. 220 Volts~, 50/60 Hz
Power Consumption ..... 9.5 W
Dimensions ..... 420 (W) x 60 (H) x 219 (D) mm
Weight (without package) ..... 2.4 kg (5 lb 5 oz)

Furnished Parts

FM T-type Antenna 1
AM Loop Antenna 1
Connection Cord with Pin Plugs 1
Operating Instructions 1

NOTE:
Specifications and design subject to possible modification without notice due to improvements.

Station Call Switch Memo

Use the form below to record the preset stations and their frequency as a reference.

S.C. Switch	1	2	3	4	5	6	7	8
Station Call Letters								
Broadcast Frequency								
S.C. Switch	9	10	11	12	13	14	15	16
Station Call Letters								
Broadcast Frequency								

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<86K00F5D05>

Printed in Japan <ARB1026-A>